

REACHING FOR GREATNESS:

UNLEASH POTENTIAL, PASSIONS, AND CREATIVE TALENTS IN STUDENTS WITH COGNITIVE SCIENCE

AT THE WESTIN COPLEY PLACE HOTEL BOSTON, MA

NOVEMBER 16-18, 2018

Early Registration Deadline: September 28 General Registration Deadline: November 2



CONFERENCE PROGRAM TOPICS

WITH A DISTINGUISHED FACULTY

"Education doesn't need to be reformed — it needs to be transformed. The key is to personalize it and to build achievement on discovering the individual talents and passions of each child."

Sir Ken Robinson, PhD, Professor Emeritus of Education, University of Warwick

1) EDUCATING POTENTIAL: PROMOTING PERSONAL PASSIONS & INTERESTS

You, Your Child, and School: Teaching to Their Talents, Passions, and Potential

Sir Ken Robinson, PhD, Internationally recognized leader in the development of creativity, innovation, and human potential; Professor Emeritus of Education, University of Warwick; Author, You, Your Child, and School: Navigate Your Way to the Best Education (2018)

Lifelong Kindergarten: Cultivating Creativity Through Projects, Passion, Peers, and Play

Mitchel Resnick, PhD, LEGO Papert Professor of Learning Research; Director, Lifelong Kindergarten Group, MIT Media Lab, Massachusetts Institute of Technology; Author, Lifelong Kindergarten: Cultivating Creativity Through Projects, Passion, Peers, and Play (2017)

Reach for Greatness: Personalizable Education for All Children

Yong Zhao, PhD, Foundation Distinguished Professor, School of Education, University of Kansas; Author, Reach for Greatness: Personalizable Education for All Children (2018), Counting What Counts (2016), Catching Up or Leading the Way (2009), and World Class Learners (2012)

Interest Matters: The Importance of Promoting Interest in Education

Judith M. Harackiewicz, PhD. Paul Pintrich Professor of Psychology, University of Wisconsin-Madison; Co-Author, "Interest Matters: The Importance of Promoting Interest in Education" (2017, Policy Insights From the Behavioral and Brain Sciences); Co-Editor, The Science of Interest (2017)

Moving Childhood Potential to Adult Creative Achievement

Rena F. Subotnik, PhD, Director, Center for Psychology in Schools and Education, American Psychological Association; Former Professor of Education, Hunter College; Co-Editor, The Psychology of High Performance: Developing Human Potential Into Domain-Specific Talent (Forthcoming)

Experiences That Spark Curiosity, Ignite Passion, and Unleash Genius

Katie Martin, PhD, Head of Partnerships-West, AltSchool; Former Director of Professional Learning, University of San Diego; Author, Learner-Centered Innovation: Spark Curiosity, Ignite Passion, and Unleash Genius (2018)

Redefining Student Success: Helping Students Pursue Their Interests and Passions

Bena Kallick, PhD, Co-Director, Institute for Habits of Mind; Program Director for Eduplanet21; and Allison G. Zmuda, MA, Founder/ Curator, Learning Personalized; Co-Authors, Students at the Center: Personalized Learning With Habits of Mind (2017)

2) THE SCIENCE OF GENIUS: INSIGHTS IN INTELLIGENCE & CHILD PRODIGIES

Teaching for Wisdom, Intelligence, Creativity, and Success

Robert J. Sternberg, PhD, Professor of Human Development, College of Human Ecology, Cornell University; Co-Author, Teaching for Wisdom, Intelligence, Creativity, and Success (2015); Co-Editor, The Nature of Human Creativity (2018) and The Nature of Human Intelligence (2018)

The Power of Different: The Link Between Disorders, Creativity, and Genius

Gail M. Saltz, MD, Clinical Associate Professor of Psychiatry, New York Presbyterian Hospital, Weill-Cornell School of Medicine, Cornell University; Psychoanalyst, New York Psychoanalytic Institute; Author, The Power of Different: The Link Between Disorder and Genius (2018)

The Science and Paradox of Intelligence: Environment, Enhancement, and Education

Louis D. Matzel, PhD, Professor of Psychology, Program in Behavioral Neuroscience and Biopsychology, Rutgers University; Co-Author, "The Paradox of Intelligence: High Heritability and Malleability Coexist in Hidden Gene-Environment Interactions" (2018, Psychological Bulletin)

The Prodigy's Cousin: The Link Between Autism and Extraordinary Talents

Joanne M. Ruthsatz, PhD, Assistant Professor of Psychology, The Ohio State University, Mansfield; and Kimberly Ruthsatz Stephens, JD, Freelance Writer; Co-Authors, The Prodigy's Cousin: The Family Link Between Autism and Extraordinary Talent (2016)

Superhuman Minds: How the Science of Savants Shows Us How to Free the Genius in Children

Berit O. Brogaard, PhD, DMSci, Neuroscientist; Professor and Director, Brogaard Lab for Multisensory Research, University of Miami; Researcher on multisensory research, synesthesia, and savantism; Co-Author, The Superhuman Mind: Free the Genius in Your Brain (2015)

MIT "BRAIN SCAN" TOUR: SEE THE BRAIN IN ACTION

THURSDAY, NOVEMBER 15 - 3:00 or 4:00 PM; FRIDAY, NOVEMBER 16 - 9:00 or 10:00 AM (Cost per Person: \$149. Tours are for one hour.)

Sponsored by the Athinoula A. Martinos Imaging Center, Massachusetts Institute of Technology

Take this unique opportunity to see an fMRI brain scan in action. Call 781-449-4010 ext. 101 for information and to register for a tour. One person from each tour will be selected by MIT to have his or her brain scanned. Brain scans will take place offsite at the MIT campus in Cambridge, MA. The MIT imaging center building is



easily accessible from the Westin Copley Place Hotel via public transit. Directions will be provided. Call (781) 449-4010 ext. 101 for availability. (Space is limited. For conference registrants only.)

CONFERENCE BEGINS AT 1:15 PM, NOVEMBER 16

SCHEDULE:

Friday, November 16 Friday, November 16

1:15 PM - 6:00 PM Saturday, November 17 Sunday, November 18

8:30 AM - 5:30 PM 8:30 AM - 3:00 PM

8:15 AM - 12:15 PM

Pre-Conference Workshops Conference Day 1 Conference Day 2 Conference Day 3



3) THE SCIENCE OF GREATNESS: UNLEASHING TALENTS & EXPERTISE

Finding Your Personal Greatness

Scott Barry Kaufman, PhD, Cognitive Psychologist; Adjunct Professor, Barnard College, Columbia University; Professor of Psychology, University of Pennsylvania; Columnist, "Beautiful Minds," Scientific American; Author, Ungifted: Intelligence Redefined (2015); Co-Author, Wired to Create (2016); Editor, The Complexity of Greatness: Beyond Talent or Practice (2013)

Self-Improvement and Expert Performance: The Power of Purposeful, Deliberate Practice

K. Anders Ericsson, PhD, Conradi Eminent Scholar; Professor of Psychology, Department of Psychology, Florida State University; Co-Author, Peak: Secrets from the New Science of Expertise (2017); Co-Editor, Cambridge Handbook of Expertise and Expert Performance (2018, 2nd Edition)

Unlocking Student Talent: The New Science of Developing Expertise

Robin J. Fogarty, PhD. Co-Founder/President. Robin Fogarty & Associates: Former Teacher: and Brian M. Pete, MA, Co-Founder/ President, Robin Fogarty & Associates; Co-Authors, *Unlocking Student Talent: The New Science of Developing Expertise* (2017)

10,000-Hour Myth: Lessons From Child Prodigies

Ellen Winner. PhD, Professor and Chair of Psychology, Boston College; Senior Research Associate, Project Zero, Harvard Graduate School of Education; Co-Author, "Gifted and Expertise: The Case for Genetic Potential" (2018, Journal of Expertise)

Beyond the Born vs. Made Debate: A New Model of Expertise and Talent

David Z. Hambrick, PhD, Director, Expertise Lab; Professor, Michigan State University; Co-Author, "Beyond Born Versus Made: A New Look at Expertise" (2016, The Psychology of Learning and Motivation) and "Deliberate Practice: Is That All It Takes To Become An Expert?" (2014, Intelligence); Lead Editor, The Science of Expertise: Behavioral, Neural, and Genetic Approaches to Complex Skill (2018)

Finding and Nurturing Exceptional Intellectual Talent

David Lubinski, PhD, Professor of Psychology; Co-Director, Study of Mathematically Precocious Youth (SMPY), Vanderbilt University; Co-Author, "From Terman to Today: A Century of Findings on Intellectual Precocity" (2016, Review of Educational Research)

4) THE SCIENCE OF INNOVATION: TEACHING TO CREATE & COLLABORATE

Participatory Creativity: Expanding Our Understanding of Invention and Innovation

Edward P. Clapp, EdD, Senior Research Manager, Agency by Design Research Initiative, Project Zero; Research Associate and Lecturer on Education, Harvard Graduate School of Education; Author, Participatory Creativity: Introducing Access and Equity to the Creative Classroom (2016)

The Neuroscience of Creativity: Mapping Creative Cognition and Abilities in the Brain

Roger E. Beaty, PhD, Assistant Professor, Department of Psychology, Pennsylvania State University; Post-doctoral Fellow, Department of Psychology, Harvard University; Co-Author, "Driving the Brain Towards Creativity and Intelligence" (2018, Neuropsychologia)

The Potential of Creativity: Providing Purpose, Meaning, and Equity for a Better World

James C. Kaufman, PhD, Professor of Educational Psychology, University of Connecticut; Author, Creativity and Mental Illness (2017); Co-Author, "Examining the Relationship Between Creativity and Equitable Thinking in Schools" (2017, Psychology in the Schools)

The Creative Spark: Imagination, Creativity, and Cooperation in Human Evolution

Agustin Fuentes, PhD, Zoologist; Anthropologist; The Edmund P. Joyce C.S.C. Professor of Anthropology, Department of Anthropology, University of Notre Dame; Author, The Creative Spark: How Imagination Made Humans Exceptional (2017)

The Science of Innovation: Overcoming Obstacles to Creativity in Your Classroom

Anthony J. McCaffrey, PhD, Founder and Chief Technology Officer, Innovation Accelerator; Director of Entrepreneurial Studies and Math Teacher, Eagle Hill School; Author, Overcome Any Obstacle to Creativity (2018)

What the Quirky Lives of Franklin, Einstein, and Marie Curie Teach Us About Creative Genius

Melissa A. Schilling, PhD, John Herzog Family Professor of Management, Stern School of Business, New York University; Author, Quirky: The Remarkable Story of the Traits, Foibles, and Genius of Breakthrough Innovators Who Changed the World (2018)

5) ENGAGED MINDS: MOTIVATING WITH THE ARTS, TECHNOLOGY, & STEM

The Brain, Education, and the Arts: Educating Every Child in Creative Thinking

Mariale M. Hardiman, EdD, Co-Founder and Director, Neuro-Education Initiative (NEI), School of Education, Johns Hopkins University; Co-Author, "The Effects of Arts Integration on Long-Term Retention of Content" (2014, Mind, Brain, and Education)

Preparing Educators for Arts Integration: Placing Creativity at the Center of Learning

Gene Diaz, PhD, Adjunct Faculty, Lesley University; Co-Author, *Teaching for Aesthetic Experience* (2004); and **Martha McKenna, EdD**, Director, Creativity Commons; University Professor, Lesley University; Co-Authors, *Preparing Educators for Arts Integration* (2017)

Promoting Interest-Driven Learning Through Technology, the Arts, STEM, and Making

Kylie A. Peppler, PhD, Associate Professor of Learning Sciences; Director, The Creativity Labs, Indiana University; Author, "Advancing Arts Education in a Digital Age" (2017, Arts in Education Quarterly Newsletter) and New Creativity Paradigms: Arts Learning in the Digital Age (2014)

Digital Minds: Personalized Learning for Interests, Inquiry, and Inspiration

Kristina J. Doubet, PhD, Consultant; Professor, Department of Middle, Secondary, and Mathematics Education, James Madison University; Co-Author, Differentiation in Elementary School (2017) and The Differentiated Flipped Classroom: A Practical Guide to Digital Learning (2016)

Even Einstein Struggled: How the Mistakes of Great Minds Can Motivate STEM Learning

Xiaodong Lin-Siegler, PhD, Director, Education for Persistence and Innovation Center (EPIC); Professor of Cognitive Studies, Teachers College, Columbia University; Co-Author, "Even Einstein Struggled" (2016, Journal of Educational Psychology)

6) INDIVIDUAL BRAINS: PERSONALIZING LEARNING, READING, & WRITING

The Reading Brain: Personalized Learning and Interventions for Literacy

John D. E. Gabrieli, PhD, Director, MIT's Integrated Learning Initiative, Massachusetts Institute of Technology, Author, "Beyond the 30-Million-Word Gap: Children's Conversational Exposure Is Associated With Language-Related Brain Function" (2018, *Psychological Science*)

What Makes the Human Mind Special?: Insights From Non-Human Animals

Laurie R. Santos, PhD, Director, Comparative Cognition Laboratory; Director, Canine and Primate Laboratory; Professor of Psychology and Cognitive Science, Yale University; Co-Author, "The Evolutionary Roots of Human Decision-Making" (2015, Annual Review of Psychology)

The Human Spark: Genes, Skills, Values, and Settings

Jerome Kagan, PhD, Emeritus Professor of Psychology, Department of Psychology, Harvard University; Author, *Five Constraints on Predicting Behavior* (2017), *On Being Human: Why Mind Matters* (2016), and *The Human Spark: The Science of Human Development* (2013)

Unleash the Power of Greatness Through Your Writing Instruction

Leslie E. Laud, EdD, Instructor, Bank Street College of Education; Co-Author, *Releasing Writers: Evidence-Based Strategies for Developing Self-Regulated Writers* (Forthcoming); and **Heidi Zollman, MEd**, Faculty, **Granite State College**; Curriculum Director, Rochester, NH

Personalized Reading: Using Tools and Strategies to Maximize Learning and Potential

Michele L. Haiken, EdD, Adjunct Professor, Literacy Department, Manhattanville College; Middle School English Teacher, Rye Middle School; Editor, Gamify Literacy (2017); Co-Author, Personalized Reading: Digital Strategies and Tools to Support All Learners (2018)

"Every brain is unique. Brain imaging and technology may help predict an individual's future literacy and learning abilities. This may offer opportunities to personalize education and clinical practice."

— John D.E. Gabrieli, PhD, Professor of Brain and Cognitive Sciences, Massachusetts Institute of Technology

REGISTER NOW FOR UPCOMING LEARNING & the BRAIN® CONFERENCES



EDUCATING WITH EMPATHY: CULTIVATING COMPASSION & COOPERATION

FEBRUARY 15-17, 2019 IN SAN FRANCISCO, CA

Held at the historic Fairmont San Francisco on Nob Hill

FEATURED SPEAKER: DACHER KELTNER, PHD

Co-Director, Greater Good Science Center; Principal Investigator, Berkeley Social Interaction Laboratory, University of California, Berkeley; Co-Editor, The Compassionate Instinct: The Science of Human Goodness (2010)



SCHOOLING SOCIAL MINDS: TEACHING SOCIAL SKILLS IN A DIGITAL AGE

MAY 3-5, 2019 IN NEW YORK, NY

Held at the Sheraton New York Times Square Hotel

FEATURED SPEAKER: TEMPLE GRANDIN, PHD

Autism Rights Advocate; Professor, College of Agricultural Sciences, Colorado State University; Author, Calling All Minds (2018); Co-Author, Unwritten Rules of Social Relationships (2017) and The Autistic Brain: Helping Different Kinds of Minds Succeed (2014)

Register for two L&B conferences and save. See LearningAndTheBrain.com for more information.

PRE-CONFERENCE WORKSHOPS (More In-Depth and Hands-on)

FRIDAY, NOVEMBER 16, 2018 8:15 AM - 12:15 PM

Cost per person: \$199. By advance registration only. (Select one of six. Add \$30 if not also attending the conference.)

- 1. Building a Culture Where Personalized Learning (With Habits of Mind) Can Thrive

 Bena Kallick and Allison Zmuda will make the case for why we need to make a shift toward personalizing learning and developing
 the necessary dispositions for success. Through a deeper exploration of these questions, the presenters will share examples from schools
 and districts that are developing generative experiences where questioning, problem posing, and innovative practices are designed and
 implemented. Bena Kallick, PhD, Co-Director, Institute for Habits of Mind; Program Director, Eduplanet21; and Allison Zmuda, MA,
 Founder/Curator, Learning Personalized; Co-Authors, Students at the Center: Personalized Learning With Habits of Mind (2017)
- 2. Everyday Problem-Based Learning: Quick Projects to Build Problem-Solving Fluency
 Here is the big secret about Problem-Based Learning (PBL)...It's not that complicated! Now is the time to transform instruction with
 enriched everyday problem-based learning. It is easy to get started with tools already familiar to teachers today: graphic organizers,
 essential questions, rich and relevant content, rigorous thinking skills, digital-rich tools for searching and researching, collaborative team
 work, projects, presentation skills, and more. Robin J. Fogarty, PhD, Co-Founder/President, Robin Fogarty & Associates; and Brian
 M. Pete, MA, Co-Founder/President, Robin Fogarty & Associates; Co-Authors, Everyday Problem-Based Learning: Quick Projects to Build
 Problem-Solving Fluency (2017), From Staff Room to Classroom (2017, 2nd Edition), and Brain-Compatible Classroom (2009)
- 3. Leveraging Technology for Learner-Centered Experiences

 This workshop is designed to support professional learning communities as well as individual educators who are seeking to create relevant and innovative learning experiences through purposeful integration of technology. Katie Martin will provide you with a snapshot of where students currently are in your instructional practice and will generate discussion about how you may want to grow to meet the learners you serve. You will explore case studies of teaching and learning to understand the most impactful intersection of technology and pedagogy that will empower learners to take ownership of their learning, create new knowledge and ideas, and discover their passions. Katie Martin, PhD, Head, Partnership-West, AltSchool; Former Director, Professional Learning, University of San Diego; Author, Learner-Centered Innovation: Spark Curiosity, Ignite Passion, and Unleash Genius (2018)
- 4. Differentiation in the Middle/High School: Strategies to Engage Bright and Diverse Learners Many teachers want to use differentiation to help all students grow. But what does differentiation really look like in today's classrooms? This workshop will tackle that question through hands-on activities focused on making differentiation practical and applicable in real Middle and High School settings. You will examine and participate in active strategies for building classroom community, gathering information on student progress and talents, engaging students in challenging content, adjusting the level of support and scaffolding, and fostering motivation...all with the goal of helping every student make significant progress, no matter where each student begins. Kristina J. Doubet, PhD, Professor, Department of Middle, Secondary, and Mathematics Education, James Madison University; Co-Author, Differentiation in Elementary School (2017), The Differentiated Flipped Classroom (2016), Differentiation in Middle and High Schools (2015), and Smart in the Middle Grades (2006)
- 5. From Striving to Thriving: How to Grow Confident, Capable Readers (K-8)
 This interactive workshop will arm you with powerful research findings, detailed blueprints for robust classroom libraries, inspiring case studies, and powerful advocacy strategies to give all readers what they need to thrive. Anne Ward will enable you to develop detailed action plans to implement in your own schools and districts. Anne T. Ward, MEd, Assistant Superintendent of Instruction, Mamaroneck Union Free School District, NY; Co-Author, From Striving to Thriving: How to Grow Confident, Capable Readers (2017)
- 6. Making Mindfulness Stick: Unlocking the Brain Potential of Wisdom, Creativity, and Curiosity In this workshop, John Gabrieli will discuss research from his lab on how mindfulness meditation changes the structure and function of the human brain and results from a middle school mindfulness-based program. You will explore with Chris Willard the best wisdom and research for supporting a mindful practice by examining all angles, including creating a community of support around children and adolescents. Together you will practice both formal and informal mindfulness practices, adapting and integrating mindfulness into creative learning, play, movement, and the arts. John D. E. Gabrieli, PhD, Director, MIT's Integrated Learning Initiative; Professor of Brain and Cognitive Sciences; Associate Director, Athinoula A. Martinos Imaging Center, McGovern Institute for Brain Research, Massachusetts Institute of Technology; and Christopher Willard, PsyD, Lecturer in Psychiatry, Harvard Medical School; Author, Raising Resilience: The Wisdom and Science of Happy Families and Thriving Children (2017), Growing Up Mindful (2016), and Child's Mind (2006); Co-Editor, Teaching Mindfulness Skills to Kids and Teens (2017)

EVENTS

MEETING OF THE MINDS - WINE & CHEESE RECEPTION

FRIDAY, NOVEMBER 16 from 6:00 PM - 7:00 PM — Free & Open to All Attendees

Enjoy this opportunity to meet other attendees and some of the nation's brightest and talented minds.

Sponsored by THE DANA ALLIANCE FOR BRAIN INITIATIVES. Advance registration required on the registration form.

PRESENT A POSTER SESSION AT THE NOVEMBER CONFERENCE

Share and present your scientific research or school program to improve student potential, expertise, talents, or instruction with other attendees. Submit a summary of your poster session for review to info@LearningAndTheBrain.com. **Proposal deadline is October 19, 2018.** For more information, visit **LearningAndTheBrain.com**, or call 781-449-4010 Ext. 104.